REF 71C

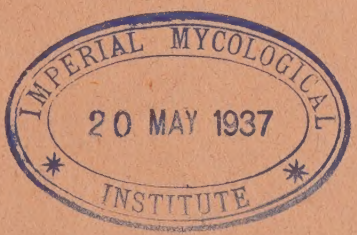
Year XI May, 1937 No. 5

INTERNATIONAL INSTITUTE OF AGRICULTURE

INTERNATIONAL BULLETIN OF PLANT PROTECTION

PUBLISHED MONTHLY

REPRINT FROM THE 'INTERNATIONAL REVIEW OF AGRICULTURE'



ROME
VILLA UMBERTO I
1937

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JUST PUBLISHED:—

INTERNATIONAL YEARBOOK OF AGRICULTURAL STATISTICS, 1935-36

PRICE: ***90 lire** (CLOTH-BOUND: ***100 lire**).

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ROME – PRINTING OFFICE OF THE CHAMBER OF DEPUTIES

INTERNATIONAL BULLETIN
OF PLANT PROTECTION

1937 No. 5

DISCOVERIES AND CURRENT EVENTS *

India: New Plant Diseases Recorded in 1936 †

(Reported by M. MITRA, Imperial Mycologist in Charge, Imperial Agricultural Research Institute, New Delhi):—

Saccharum officinarum . .	Mosaic on Co. 354, Co. 427, Co. 517, Co. S 119, Shakarchiniya, P. O. 2878.
	Sclerospora sacchari Miyake on Co. 518 from Shahjahanpur, U. P.
Cinchona ledgeriana . .	*Diplodia* sp.
	Gloeosporium sp.
	Glomerella sp.
Ipomoea pes-tigridis . .	*Cystopus ipomoeae - panduratae* (Schw.) Stev. and Sw.
Carthamus tinctorius . .	*Alternaria* sp.
Eleusine coracana . .	*Ustilago eleusinis* Kulkarni.
Basella rubra . .	*Alternaria* sp.
Asparagus sp. . .	*Phoma asparagi* Sacc.
Sesamum indicum . .	*Alternaria* sp.
Cyperus tegetiformis . .	*Kawakamia cyperi* (Miyabe and Ideta) Miyabe.
Ipomoea batatas . .	*Rhizoctonia solani* Kühn.
Cucurbita maxima . .	*Sphaerotheca humuli* (DC.) Burr. var. *fuliginea* Schlecht.
Zea mays . .	*Colletotrichum graminicolum* (Ces.) Wils.

(Reported by K. M. THOMAS, Offg. Govt. Mycologist, Coimbatore, Madras):—

Ficus carica . .	Three hundred mesh sulphur supplied by Messrs. Cooper, McDougall and Roberton, Ltd., of Berkhamsted, Herts England was found superior to other brands of sulphur and to Bordeaux mixture for the control of fig rust.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from Mr. M. MITRA, Ph. D. (Lond.), D. Sc. (Lond.), D. I. C., Imperia Mycologist in Charge, Imperial Agricultural Research Institute, New Delhi, India.

(Reported by J. F. DASTUR, Govt. Mycologist, Nagpur, C. P.):—

Linum usitatissimum . .	*Oidium* sp. (Powdery mildew).

(Reported by U. THET SU, Mycologist, Mandalay, Burma):—

Garcinia mangostana . .	*Schizophyllum commune* Fr.
Pyrus malus . .	*Diplodia* sp.
Oryza sativa . .	*Corticium* sp.
Vitis vinifera . .	*Oidium* sp.
Citrus nobilis var. *deliciosa* . .	*Phoma* sp.

(Reported by S. V. VENKATARAYAN, Mycologist, Govt. of Mysore):—

Nicotiana tabacum . .	*Sclerotium rolfsii* Sacc.
Piper betle . .	*Sclerotium rolfsii* Sacc.

(Reported by S. HEDAYETULLAH, Economic Botanist, Dacca, Bengal):—

Oryza sativa . .	Foot-rot disease caused by *Fusarium* sp. *Piricularia* sp. *Helminthosporium* sp. *Rhizoctonia* sp. on seed. Treatment with mercury chloride (1-2000) controlled the disease.
Capsicum sp. . .	*Choanephora cucurbitarum* (Berk. and Rav.) Thaxter.

(Reported by S. R. BOSE, Prof. of Botany, Carmichael Medical College, Calcutta):—

Terminalia catappa . .	*Fomes fastuosus* Lev.

(Reported by S. P. AGHARKAR, Prof. of Botany, University College of Science, Calcutta):—

Citrus sp. . .	*Fusarium moniliforme* Sheldon, causing storage rot.

(Reported by J. C. LUTHRA, Prof. of Botany, Punjab Agric. College, Lyallpur):—

Citrus sp. . .	Wilt disease caused by *Fusarium* sp.
Nicotiana tabacum . .	Wilt caused by *Bacillus solanacearum* Smith.
Trifolium alexandrinum . .	Root-rot due to *Fusarium* sp.
Solanum tuberosum . .	Wilt due to *Fusarium* sp.
Pyrus malus . .	*Fusicladium dendriticum* Fuck. causing scab.
Saccharum officinarum . .	*Helminthosporium* sp. causing a seedling disease.

(Reported by R. G. ALLAN, Commissioner of Agriculture, Baroda State, Baroda):—

Dolichos biflorus . .	*Macrophomina phaseoli* (Maubl.) Ashby.
Nicotiana tabacum . .	*Macrophomina phaseoli* (Maubl.) Ashby.
Cyamopsis psoraloides . .	*Macrophomina phaseoli* (Maubl.) Ashby.
	Colletotrichum sp.
Allium cepa . .	*Aspergillus niger* van Tiegh.
	Alternaria sp.

Southern Rhodesia: Locust Invasion, 1932-1937 *

Monthly Report No. 51. February, 1937.

Only one report of locusts in any stage of development was received during February. This report referred to a small outbreak of hoppers near the Kariba Gorge in the Zambezi Valley on the 27th.

So far no hoppers have appeared as the result of the presence of flying swarms in the occupied parts of the northern districts of the Colony during the latter part of January.

It is possible that the disappearance of winged swarms has been largely due to the activity of locust eating birds, as flying swarms were in evidence up to the beginning of March last year. Disease has not been recorded and parasites have been relatively scarce.

The prospects, at least for the present season, are now definitely favourable.

Italian Somaliland: Locusts †

During the month of February, 1937, no locusts were reported in the Colony.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Angola. — By Decree of the Minister for the Colonies of Portugal No. 27 : 539 of 25 February, 1937, the Governor General of Angola is authorized to open, during the year 1937, a special credit of 500.000 ' angolares ' for the purpose of meeting expenses incurred in locust control. (*Diário do Govêrno*, Lisboa, 25 de fevereiro de 1937, I série, núm. 46, pág. 163).

Germany (**Hamburg**). — By Ordinance of 17 February, 1937, the control of apple sucker [*Psylla mali*] and apple scab [*Venturia inaequalis*] is rendered compulsory in certain communes. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. März 1937, Bd. IX, Nr. 2, S. 27).

* Communication from the official correspondent of the Institute, Mr. RUPERT W. JACK, F. E. S., Chief Entomologist, Agricultural Laboratory, Department of Agriculture, Salisbury, Southern Rhodesia.

† Communication from Dr. FERRANTE PAVERI FONTANA, Chief of the Agricultural Bureau of Italian Somaliland, Mogadiscio, transmitted to the Institute by the Government of the Colony.

Germany (Prussia). — By the Ordinances of 16 and 23 January, 1937, the control of the beet leaf bug [*Piesma quadrata*] is rendered compulsory in the districts of Breslau and Liegnitz respectively. The dispositions correspond to those approved by Decree of 21 December, 1936 [see this *Bulletin*, 1937, No. 3, p. 54] in Saxony. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. März 1937, Bd. IX, Nr. 2, S. 28).

*** By Ordinance of 30 January, 1937, the clearing of thistles (*Cirsium arvense*) is rendered compulsory in the stade district.

The thistles must be destroyed in such a way as to render impossible the production of heads and achenes. The necessary measures must be completed before 1 July. However, in fields under cereal cultivation, the control of thistles must be undertaken at a fairly early date so as to avoid damaging the crops in carrying out these operations.

These operations will be controlled by special Commissions who will examine the fields within the period 1-15 June. (*Ibid.*, S. 27-28).

Argentine Republic. — By Decree No. 96.836 of 30 December, 1936, persons, railway or other transport companies who accept and convey fruits or fresh vegetables destined to the provinces of La Rioja or Catamarca, or taking consignments from the said provinces to any other part of the country, contravening the dispositions of Decree No. 71.331 of 23 November, 1935 [see this *Bulletin*, 1936, No. 6, p. 125], shall be punished by a fine of from 5 to 1000 'pesos'. (*Boletín Oficial de la República Argentina*, Buenos Aires, 23 de febrero de 1937, año XLV, núm. 12.789, pág. 2074).

*** Decree No. 100.143 of 19 February, 1937, regulates the use and transport of packing cases denominated 'cajones fruteros de retorno', which are often employed in the transport of fruits and garden produce.

In order to prevent the spread of the oriental peach moth (*Laspeyresia* [*Cydia*] *molesta*) and other pests, and for reasons of hygiene, the use and transport is prohibited of these packing cases for the consignment of fruits and fresh garden produce, destined to or proceeding from the provinces of Mendoza, San Juan, Córdoba, La Rioja, Catamarca, and Buenos Aires, to the South of the town of Bahía Blanca, and the territories of Río Negro, Chubut, and Neuquén.

The transport of fruits and fresh garden produce from and to the above-mentioned provinces and territories will be effected solely in new packing cases designated 'envases perdidos' and consequently used for one consignment only. This regulation does not apply to citrus fruits and fresh garden produce which according to custom are transported in bulk, in sacks or bags which must be new and only used once.

Empty packing cases destined to or proceeding from the above specified provinces and territories, in order to be accepted and despatched by transport companies, must be marked and packed in such a way as to allow verification of their newness.

The senders of consignments of fresh fruits produced in the afore-said provinces and territories, which are sent for deposit and conservation to the cold storage depots situated outside those zones, with the intention of returning them to the said areas, must effect a preliminary request to the ' Dirección de Sanidad Vegetal ' in order to be granted a special certificate of free transit.

Moreover, penalties are established for the non-execution of the dispositions of this Decree. (*Ibid.*, 21 de febrero de 1937, núm. 12.790, págs. 2114 y 2115).

Australia (Western Australia). — On 21 December, 1936, the Director of Agriculture announced that the plant *Babiana plicata* has been declared a noxious weed within the boundaries of the Toodyay Road Board District. (*Government Gazette of Western Australia*, Perth, December 24, 1936, No. 66, p. 2102).

*** A Proclamation of 23 December, 1936, made under ' The Plant Diseases Act, 1914-1935 ', establishes the following:—

(1) Revoke the Proclamation made under the said Act and dated 7 September, 1921;

(2) Prohibit absolutely the entry into those regions of the State described in the Second and Third Schedules of loquats, apricots, peaches,plums, nectarines, figs, pears, quinces, plantains, pomegranates, guavas, tacsonias, persimmons and citrus fruits (other than limons) from the district described in the First Schedule. However, the said fruits intended to be taken from this latter district to another place within the State but outside the regions mentioned in the First and Second Schedules may be transported through the region noted in the Second Schedule, if such be the most convenient route.

(3) Prohibit the entry into those portions of the State mentioned in the First and Second Schedules of apples, lemons, grapes, tomatoes, pineapples, and passiflora fruits from the region described in the First Schedule, except in accordance with and subject to the relative regulations for the time being in force:

Provided that:—

(*a*) the entry of any of the said fruits into that portion of the State described in the Third Schedule hereto permitted under the exception aforesaid shall be subject to the prohibition declared in paragraph (4) hereof; and

(*b*) any of the aforesaid fruits from the region noted in the First Schedule may be transported through the district described in the Second Schedule as in (2).

(4) Subject as in this paragraph hereinafter provided, and not withstanding to the contrary contained in paragraph (3) hereof, prohibit absolutely the entry into that portion of the State described in the Third Schedule between the thirtieth day of November and the first day of May next following in any yearly period of the fruits mentioned in paragraphs (2) and (3) from any portion of the State other than that portion of this State described in the Third Schedule.

Provided that this paragraph shall not operate so as to prohibit the entry into the abovesaid region of the fruits listed in (3) brought from any part of the State and citrus fruits (other than lemons) brought from that part of the State described in the Second Schedule, between the dates aforesaid, which have been

certified by a departmental inspector to be free from fruit fly, and which are so brought in accordance with the relative regulations for the time being in force.

(5) Subject as hereinafter in the paragraph provided, prohibit absolutely the carriage into that portion of the State described in the Third Schedule from any other portion of the State, of any empty second-hand fruit case which had previously been used to contain the fruits noted in (2) and (3):

Provided that this prohibition shall not apply if the aforesaid fruit cases were treated and marked under supervision at a factory duly registered under 'The Fruit Cases Act, 1919-1933'.

(6) The same regulations also apply, as in paragraph (5), to the carriage of fruit cases into that portion of the State described in the Second Schedule from any portion of the State except that described in the Third Schedule.

These various districts of the State are described in three annexed Schedules. (*Ibid.*,, December 31, 1936, No. 67, pp. 2107-2108).

Chile. — By Decree No. 801 of 26 December, 1936, the Regulation regarding the production and distribution of certified potatoes has been approved.

Certified potatoes are those which have been declared officially on a certificate endorsed by the Service of 'Sanidad Vegetal' of the Ministry of Agriculture, as being absolutely free from diseases and pests transmissible by seed, and suitable for sowing. For the production and sale of certified potatoes, farmers must comply with the conditions declared in the above-mentioned Regulation. (*Diario Oficial de la República de Chile*, Santiago, 18 de enero de 1937, año LX, núm. 17, 670, pág. 207).

Colombia. — In order to protect the national sugar-cane industry against harmful diseases and pests, by Decree No. 3067 of 16 December, 1936, the importation of sugar-cane seed from abroad is strictly prohibited.

Through authorization by the Ministry of Agriculture and Commerce, exemption is made for seed obtained from the Federal Experiment Station of Mayaguez, Puerto Rico, from the Experiment Station of the Puerto Rico University, Río Piedras, P. R., and from the Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.

This seed must be sent accompanied by a health certificate officially endorsed by the relative pathologist.

Also, any exchange or trade in sugar-cane seed between any of the departments of the Republic is strictly forbidden. (*Diario Oficial*, Bogotá, 15 de enero de 1937, año LXXIII, núm. 23383, pág. 85).

United States of America. — The revision of Notice of Quarantine No. 52, on account of the pink bollworm of cotton (*Pectinophora* [*Platyedra*] *gossypiella*), and of rules and regulations supplemental to said Notice, approved on 13 October, 1936, and effective on 14 October, 1936, releases from restriction all parts of the State of Florida formerly included in the regulated area. This action is taken on the basis of very careful inspections made throughout the area in 1935 and

1936, with negative results. It is therefore believed that eradication efforts have been successful in Florida and that quarantine regulations on account of the pink bollworm of cotton are no longer necessary in that State. (*B. E. P. Q.* — *Q. 52*, [Washington], 1936, 8 pp.).

*** Amendement No. 1 to regulation 3 of Notice of Quarantine No. 61, on account of the Thurberia weevil [*Anthonomus grandis* var. *thurberiae*], approved and effective on and after 22 October, 1936, has been issued to release from restriction four townships in Pinal County, Ariz., which were formerly included in the regulated area. The area involved is desert land in which no cotton has been raised. Plans for irrigation and cotton production are, however, under way. The recent eradication of Thurberia plants from the mountains between this area and Marana, the nearest known point of infestation, is believed to have eliminated danger of Thurberia weevil establishing itself there when cotton is planted. (*B. E. P. Q.* — *Q. 41*, [Washington], 1936, 2 pp.).

*** Amendment No. 3 to the regulations go verning the importation of potatoes into the United States eliminates the provision for the importation of foreign potatoes into the Territory of Hawaii for local use, without restriction, and provides that the entry of foreign potatoes into the said Territory be governed by the same restrictions which apply to the entry of potatoes into continental United States and Puerto Rico. It provides also for the entry of potatoes from the entire Northern Territory of Baja California (formerly designated as Lower California), Mexico. Heretofore potatoes from Baja California Mexico have been authorized only from the Imperial Valley.

This amendment of regulation 7, dated 31 October, 1936, became effective on and after 1 December, 1936. (*B. E. P. Q.* — *Potato Regs.*, [Washington], 1936, 2 pp.).

*** On 31 October, 1936 has been removed and revoked the quarantine placed by Notice of Quarantine No. 53, on account of the satin moth [*Stilpnotia salicis*], upon the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and Washington. Such removal and revocation takes effect on 2 November, 1936. (*B. E. P. Q.* — *Lifting Q. 53*, [Washington], 1936, 1 p.).

*** Amendment No. 2 to rules and regulations supplemental to Notice of Quarantine No. 71, on account of the Dutch elm disease [*Ceratostomella ulmi*], adds to the regulated area two towns in Fairfield County, Conn., as well as three towns in Orange County and one town in Suffolk County, N. Y. It also adds to the regulated area of New Jersey numerous townships and boroughs not heretofore included. This action was taken on the basis of intensive inspections made throughout the year which disclosed infections, in areas contiguous to the present regulated area.

This amendment of regulation 3 was approved on 3 November, 1936 and became effective on and after 9 November, 1936. (*B. E. P. Q.* — *Q. 71*, [Washington], 1936, 2 pp.).

*** Amendment No. 2 to revised rules and regulations supplemental to Notice of Quarantine No. 64, on account of the Mexican fruit worm [*Anastrepha ludens*], approved on 14 November, 1936, and effective on 16 November, 1936, authorizes the Chief of the Bureau of Entomology and Plant Quarantine to make such modifications as may be considered necessary with respect to the duration and dates of commencement and termination of the host-free period within the regulated area. (*B. E. P. Q. — Q. 64*, [Washington], 1936, 2 pp.).

*** Revised rules and regulations supplemental to Notice of Quarantine No. 56, governing the importation of fruits and vegetables into the United States, in order to prevent the introduction of certain injurious insects, including fruit and melon flies (Trypetidae), have been approved on 14 November, 1936, and are effective on 1 December, 1936.

*** Quarantine No. 56, the Fruit and Vegetable Quarantine, which was promulgated about 10 years after Quarantine No. 5 (Foreign), the Mexican Fruit Fly [*Anastrepha ludens*] Quarantine, regulated the entry into United States of all Mexican fruits except those prohibited by Quarantine No. 5. Since the said Fruit and Vegetable Quarantine contains prohibitive as well as restrictive features, Quarantine No. 5 is unnecessary and has been revoked on 14 November, 1936.

The revocation of Quarantine No. 5, which is effective on and after 1 December, 1936, automatically places the fruits that were named in that Quarantine under the provisions of Quarantine No. 56; however, under the latter Quarantine these fruits will continue to be prohibited entry except when so treated as to eliminate pest risk. (*B. E. P. Q. — Q. 5*, [Washington], 1936, 1 p.).

*** Amendment No. 1 to revised rules and regulations supplemental to Notice of Quarantine No. 52, on account of the pink bollworm of cotton [*Pectinophora* (*Platyedra*) *gossypiella*], adds the Texas Counties of Glasscock, Howard, and Martin, and those portions of Dawson and Midland Counties not previously regulated, to the lightly infested area, due to the recent finding of the pink bollworm at Big Spring in Howard County and at Patricia in Dawson County. Glasscock, Howard, and Martin Counties and the previously non-regulated areas in Midland County are included since seed cotton is moved throughout these counties for ginning without regard to county lines.

This amendment of regulation 3 was approved on 28 November, 1936 and became effective on and after 1 December, 1936. (*B. E. P. Q. — Q. 52*, [Washington], 1936, 2 pp.).

*** The lifting of Notice of Quarantine No. 5 (foreign), on account of the Mexican fruit fly [*A. ludens*], antomatically places the Mexican fruits, formerly prohibited entry by that Quarantine, under the provisions of Quarantine No. 56, which now prohibits or restricts the entry of all fruits from Mexico. Since the entry of these fruits from Mexico will continue to be prohibited, except when they have been so treated as to remove pest risk, it is deemed desirable

at this time to clarify the provisions of regulation 2 with respect to entry of certain products which have been so treated as to eliminate pest risk, or which may be admitted subject to adequate safeguards prescribed as conditions of entry. Advantage has been taken of this opportunity to remove certain specific limitations as to ports of entry authorized for various commodities, leaving those limitations to be specified in the permits. The only change made in the other regulations is the substitution of the new legal title 'Bureau of Entomology and Plant Quarantine' in regulations 1 and 3 for the former title 'Bureau of Plant Quarantine'. The notice of permit requirements for the entry of chestnuts and acorns from foreign countries issued pursuant to the provisions of regulation 2, which became effective on 29 July, 1929, continues in effect. (*B. E. P. Q. — Q. 56*, [Washington], 1936, 5 pp.).

India. — The Notification No. F.-320/35-A., dated 20 July, 1936, imposes, *inter alia*, the following dispositions:—

(1) . . . . . .

(2) No plant shall be imported into British India by means of letter or sample post; provided that sugarcane for planting intended to be grown under the personal supervision of the Government Sugarcane Expert, Coimbatore, may be imported by him by such post.

(3) No plant shall be imported into British India by air; provided that plants which are infested with living insects and are intended for the introduction of such living insects may be so imported if they are accompanied by a special certificate from the Imperial Entomalogist to the Government of India that such plants are imported for the purpose of introducing such insects.

(4) No plants other than fruits and vegetables intended for consumption, potatoes and sugarcane shall be imported into British India by sea except after fumigation with hydrocyanic acid gas and at a prescribed port (Bombay, Calcutta, Cochin, Dhanushkodi, Karachi, Madras, Negapatam, Rangoon or Tuticorin).

Provided that plants which are infested with living parasitized insects and are intended for the introduction of such parasites may be imported without such fumigation if they are accompanied by a special certificate from the Imperial Entomologist to the Government of India that such plants are imported for the purpose of introducing such parasites.

Provided also that in the case of plants imported direct by Mr. M. K. Seetharama Chetty so long as he holds the post of Superintendent, Government Gardens, Mysore, such fumigation shall be dispensed with on condition that Mr. Seetharama Chetty makes himself personally responsible for the effective fumigation under the supervision of the Mycologist of the Mysore Agricultural Department of all such plants within four days of their landing in India, and that before release from the fumigatorium the plants are certified as free from insect pests and diseases by the Government Mycologist and by the Government Entomologist, Mysore State.

Provided also that rubber plants, stumps and bud wood which the certificate required by paragraph 5 shows to have been grown in Sumatra or in the Federated

Malay States and which are intended to be grown in the Tenasserim Division of Burma, may be imported without such fumigation at any port within the Tenasserim Division of Burma.

(5) No plants, other than fruits and vegetables intended for consumption and potatoes, shall be imported into British India by sea unless accompanied by an official certificate in the form prescribed in the third schedule appended hereto that they are free from injurious insects and diseases.

(6) Potatoes shall not be imported into British India by sea unless they are accompanied by:—

(*a*) a certificate from the consignor stating fully in what country and in what district of such country the potatoes were grown and guaranteeing that warty disease [*Synchytrium endobioticum*] was not known to exist on the farms where the potatoes were grown; and

(*b*) an official certificate that no case of warty disease of potatoes has been known during the twelve months preceding the date of the certificate within five miles of the place where the potatoes were grown.

Provided that potatoes may be imported from Italy if they are accompanied by a certificate of freedom from disease granted by a Royal Phytopathological Institute in Italy.

Provided also that potatoes may be imported under a certificate from the Imperial Economic Botanist, Imperial Agricultural Research Institute, New Delhi.

(7) Rubber plants shall not be imported into British India by sea unless in addition to the general certificate required under Rule 5 they are accompanied by an official certificate that the estate from which the plants have originated or the individual plants are free from *Fomes semitostus*, *Sphaerostilbe repens*, *Fusicladium macrosporum* and *Oidium heveae*.

(8) No lemon plants, lime plants, orange plants, grape-fruit plants or other citrus plants and no cuttings of such plants shall be imported into British India unless, in addition to the general certificate required under Rule 5 they are accompanied by an official certificate that they are free from the 'mal secco' (*Deuterophoma tracheiphila*) or that the disease does not exist in the country in which they were grown.

(9) (*a*) The importation of sugarcane into British India by sea from the Fiji Islands. New Guinea, Australia or the Philippine Islands is prohibited absolutely.

(*b*) The importation of sugarcane into British India by sea from any other country is prohibited unless, in addition to the general certificate required under Rule 5 it is accompanied by an official certificate that it has been examined and found free from cane borers, scale insects, aleurodes, root disease (any form), pineapple disease (*Thielaviopsis paradoxa*), sereh and cane gummosis, that it was obtained from a crop which was free from mosaic disease and that the Fiji disease of sugarcane does not occur in the country of export;

Provided that in the case of canes for planting imported direct by the Government Sugarcane Expert, Coimbatore, and intended to be grown under his per-

sonal supervision, such certificates shall be required only in respect of the freedom of the country of export from the Fiji disease of sugarcane.

(10) Hevea rubber plants and hevea rubber seeds shall not be imported into British India from America or from the West Indies except by the Director of Agriculture, Madras Presidency.

(11) (*a*) Seeds of flax, berseem and cotton shall not be imported by letter or sample post, otherwise than by sea.

(*b*) The importation of 'Mexican Jumping Beans' (*Sebastiania palmeri* of the family Euphorbiaceae) is prohibited absolutely.

(12) Coffee plants, coffee seeds and coffee beans shall not be imported into British India except for experimental planting purposes only by the Director of Agriculture, Madras Presidency, who shall take all measures necessary to ensure that such coffee plants, beans or seeds as are imported by him are free from plant diseases and injurious insects. Provided that the prohibition hereinbefore contained shall not apply (*i*) to roasted and ground coffees, or (*ii*) to a consignment of unroasted or unground coffee beans or seeds produced in India and covered by a certificate of origin in the form set forth in the fourth schedule appended hereto and signed by one the authorities specified in the fifth schedule appended hereto.

(13) Flax seeds and berseem (Egyptian clover) seeds shall not be imported into British India by sea, unless the consignee produces before the Collector of Customs a license from a Department of Agriculture in India in that behalf.

(14) (*a*) Unginned cotton other than cotton from a Kathiawar port which has been produced in India shall not be imported by sea or by air.

(*b*) Cotton seed shall not be imported by sea save for experimental purposes by one of the offices named in the second schedule appended hereto, and shall not be so imported by such office save at the port of Bombay and in quantities not exceeding one hundredweight in any one consignment and on condition that it will be fumigated on importation with carbon bisulphide;

Provided that, if the cotton seed is accompanied by a certificate from a Government Entomologist of the country of origin to the effect that the [seed and its container have been treated in such a way as to destroy all insect life, the seed shall be examined on importation by such officer as the Governor-General-in-Council may appoint and shall not be required to be refumigated unless such examination shows that refumigation is necessary.

(15) Nothing in these rules be deemed to apply to:—

(*a*) the import of any article into Aden, or

(*b*) the bringing by sea or by air from one port or place in British India, not being in Aden, to another such port or place.

Five schedules are appended. (*The Indian Journal of Agricultural Science*, Delhi, December, 1936, Vol. VI, Pt. VI, pp. 1338-1346).

Italy. — The wine-growing territories of Turin province are declared infested with grape phylloxera [*Phylloxera vastatrix*]. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 10 marzo 1937, anno 78°, n. 58, p. 883).

*** The territories of the communes of Sarteano, Siena province, Pian di Scò and Castelfranco di Sopra, Arezzo province, have been declared infested with phylloxera [*Phylloxera vastatrix*]. (*Ibid.*, 13 marzo 1937, n. 61, p. 931).

*** The Ministerial Circular No. 178 of 6 February, 1937, notifies the necessity of treating cotton seed for sowing with carbon sulphide. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 1° marzo 1937, anno IX, n. 5, pp. 526-529).

*** The Royal Decree No. 327 of 22 February, 1937, affects some modifications in the personnel of the Ministry of Agriculture and Forests including the staff of inspectors for plant diseases and the technical delegates attached to the syndicates engaged in the control of grape phylloxera. (*Gazzetta Ufficiale del Regno d'Italia*, 1° aprile 1937, n. 76, pp. 1199-1204).

*** By Ministerial Decree of 28 February, 1937, the wine-growing territories of the Foggia province have been declared infested with grape phylloxera. (*Ibid.*, 29 marzo 1937, n. 73, p. 1176).

Luxemburg (Grand Duchy of). — By Decree of 18 July, 1936, the import of tubers and plants of potatoes, as well as the fruits and plants of tomatoes and egg-plants, is only allowed in the case of consignments which are accompanied by certificates issued by the Plant Protection Service of the country of origin testifying that the place of origin of these products is exempt from wart disease (*Synchytrium endobioticum*) and the Colorado beetle (*Leptinotarsa decemlineata*). Fields which are situated at a distance of at least 20 km. from any infested area of the Colorado beetle and wart disease are considered as being exempt. In respect of the wart disease, a lesser distance, though always exceeding 5 km., is allowed, provided that, in this case, the potatoes have been examined by the Plant Protection Service of the country of origin and have been recognized as being free from wart disease.

The importation of potatoes, tomatoes and egg-plants shall be effected by rail or else by certain routes indicated in the present Decree.

Consignments arriving at the frontier without the above-mentioned certificate will be refused. However, the importer may request their entry if an inspection by the Plant Protection Service of Luxemburg carried out at his expense proves that the said consignments are free from wart disease and the Colorado beetle.

In derogation of these dispositions, facilities are provided for those persons residing at Luxemburg and cultivating fields in the border zone over the frontier.

All persons cultivating or having in stock, potatoes, tomatoes and egg-plants are obliged to report at once the appearance of the Colorado beetle or wart disease in the fields or in the warehouses. (*Deutsches Handels-Archiv*, Berlin, 1. Januar 1937, 91. Jarhg., S. 57-58).

*** By Decree of 17 December, 1936, relative to the control of grape phylloxera [*Phylloxera vastatrix*], the right to import stocks and cuttings of the grape vine is reserved by the Wine-growing Station of the Grand-Duchy. The Decree of 29 May, 1934 [see this *Bulletin*, 1934, No. 10, p. 224], is repealed. (*Ibid.*, 1, Februar 1937, S. 371).

Morocco (French Zone). — A Vizirial Decree of 23 January, 1937 (10 kaada 1355) modifies the Vizirial Decree of 1 August, 1935 (12 joumada I 1355) relative to the application of sanitary measures to potatoes, tomatoes and egg plants on their entry into the French zone of the Sherifian Empire [see this *Bulletin*, 1936, No. 10, p. 227]. (Empire chérifien. Protectorat de la République française au Maroc. *Bulletin officiel*, Rabat, 26 février 1937, XXVI[e] année, n° 1270, p. 285-286).

Union Islands. — By Ordinance No. 1 of 1936, dated 18 November, 1936, which may be cited as 'The Union Islands Plant Protection Ordinance, 1936' and shall come into force on 1 December, 1936, it shall be lawful for a District Officer or a Native Magistrate, if he shall know or suspect any plant or part of plant, whether introduced into Union Islands before or after the commencement of this Ordinance, to be affected with insect pest or disease, to cause the same to be examined and, if it is in his opinion necessary, rendered innocuous or destroyed.

No person shall put ashore, introduce, or attempt, or be concerned in attempting to introduce or bring into the Union Islands:—

(i) any plant or part of plant, or any fruit, or any soil, except with the prior written permission of an Inspector or of a District Officer, and upon such conditions (if any) as shall be prescribed in such permission;

(ii) any copra sacks or other sacks shipped from or through American Samoa or Western Samoa except after such fumigation before leaving American Samoa or Western Samoa as an Inspector may prescribe;

(iii) any other goods shipped from or through American or Western Samoa except after such fumigation before leaving American Samoa or Western Samoa as an Inspector may prescribe.

Provided that fumigation pursuant to paragraph (iii) hereof shall not be required in respect of merchandise sold by retail in small parcels on board the importing vessel in the Union Islands in the ordinary way of native trade before being landed.

The Gilbert and Ellice Islands (Plants) Regulation, 1911, shall cease to have any force or effect in the Union Islands upon the commencement of this Ordinance. (*Supplement to the Western Samoa Gazette — Published by Authority*, Apia, Western Samoa, November 18th, 1936, No. 1, pp. 535-536).

Union of South Africa. — By Proclamation No. 282 of 6 November, 1936, the following seeds, products and dead portions of plants shall be included in the

definition of plant in section two of the Agricultural Pests Act, 1911 (Act No. 11 of 1911):—

(*a*) The seeds of maize, barley, cotton, lucerne (*Medicago sativa*), tomato, oaks (*Quercus* spp.), chestnuts (*Castanea* spp.), elms (*Ulmus* spp.), tea (*Camellia thea*);

(*b*) The seeds and the flowering or seed heads of all species of *Arctium*;

(*c*) Unmanufactured cotton, including linters and all kinds of unspun cotton waste;

(*d*) Unmanufactured broomcorn derived from *Sorghum* whether fresh or dry, and any broom or brush or other article made in whole or in part from *Sorghum*;

(*e*) Unmanufactured and leaf tobacco;

(*f*) Unmanufactured cork derived from the cork oak tree;

(*g*) Lucerne hay, whether fresh or dried;

(*h*) The peel of citrus fruit of any variety, whether fresh or dried. (*The Union of South Africa. Government Gazette*, Pretoria, 4 December, 1936, Vol. CVI, No. 2392, p. 447).

*** By Proclamation No. 283 of 6 November, 1936, Johannesburg, Pretoria and Nelspruit shall be additional ports of entry through which plants from oversea may be introduced into the Union, and Simonstown, Mossel Bay and Port Nolloth shall be additional ports of entry through which fruits, potatoes and onions, but no other plants, from oversea may be introduced into the Union. (*Ibid.*, p. 448).

*** By Proclamation No. 284 of 6 November, 1936, (*a*) the provision of sections eight to twelve inclusive of the Agricultural Pests Act, 1911 (Act No. 11 of 1911) shall apply, *mutatis mutandis*, in respect of the introduction into the Union of plants from:—

(*i*) The Mandated Territory of South West Africa;

(*ii*) Portuguese East Africa, provided that the said provisions shall not apply to maize and barley from the territory administered by the Companhia de Moçambique; and

(*iii*) Any state or territory in Africa north of the Zambesi, excluding Northern Rhodesia, Nyasaland, and the Belgian Congo; and

(*b*) The provisions of sub-sections (3) and (4) of section nine and of sections ten to twelve inclusive of the said Act shall apply, *mutatis mutandis*, in respect of the introduction into the Union of:—

(*i*) Seeds of maize and barley from the Belgian Congo;

(*ii*) Any living plant from the Belgian Congo, Nyasaland or Northern Rhodesia; and

(*iii*) Any unmanufactured leaf tobacco, cotton seed, unmanufactured cotton lint, and all kinds of unspun cotton waste, but excluding purified cotton wool and cotton batting, from the Belgian Congo, Nyasaland, Northern Rhodesia or Southern Rhodesia. (*Ibid.*, p. 448).

*** By Proclamation No. 285 of 6 November, 1936, (*a*) the plants mentioned in Schedule ' A ' hereto shall be added to the list of plants the introduction whereof into the Union is prohibited under section nine of the Agricultural Pests Act, 1911 (Act No. 11 of 1911); and (*b*) The plants mentioned in Schedule ' B ' hereto shall be withdrawn from the list of plants the introduction whereof into the Union is prohibited under section nine of the said Act.

SCHEDULE A.

(*a*) The seeds and the flowering or seed heads of all species of *Arctium*.

(*b*) Fresh stone fruits, viz.: apricots, plums, peaches, nectarines and cherries.

(*c*) All species of citrus fruit and the peel thereof, whether fresh or dried, but excluding candied citrus peel.

(*d*) All species of *Opuntia*.

(*e*) Lucerne hay, whether fresh or dried.

SCHEDULE B.

Fresh grapes.

(*Ibid.*, pp. 448-449).

*** By Proclation No. 286 of 6 November, 1936, the introduction into the Union of the plants mentioned in the Schedule hereto shall be subject to the restrictions set forth in the said Schedule.

SCHEDULE.

Restrictions on the Introduction of Certain Plants from Certain Countries.

I. No person shall introduce or cause to be introduced into the Union:—

(*a*) Any apples, pears, quinces or loquats from Japan, China, Korea, Manchuria or East Siberia;

(*b*) Any plant or seed of any species of *Castanea* from North America or any other country where the disease known as ' chestnut blight ' (*Endothia parasitica*) exists;

(*c*) Any plant or seed of any species of *Ulmus* from the continent of Europe, or any other country where the elm disease (*Graphium ulmi*) exists;

(*d*) Any plant or seed of tea (*Camellia thea*) from India, Japan, Formosa, or any other country where the disease known as ' blister blight ' (*Exobasidium vexans*) exists, unless it is accompanied by a certificate from the Department of Agriculture, the Indian Tea Association, or other official institution in the country of origin stating that the said disease has not occurred within ten miles of the place where the seed or plant was produced;

(*e*) Any tomato seed from Germany, Italy, North America or any other country where the disease known as ' bacterial canker of tomato ' (*Aplanobacter michiganénse*) exists, unless the consignment is accompanied by a certificate from the Department of Agriculture, or other official institution in the country of origin, stating that the seed was produced by plants officially inspected in the field and found to be free from the said disease;

(*f*) Any rose plant from North America or Australia, or any other country where a virus disease of roses is known to occur, unless it is accompanied by a certificate from the Department of Agriculture, or other official institution in the country of origin, stating that no virus disease affecting roses is known to occur on the premises where it was grown.

Restrictions on the Introduction of Pome Fruit Trees, Unmanufactured Tobacco, Broomcorn and Plants Packed in Soil.

II. (1) Notwithstanding any permit issued to him under sub-section (3) of section nine of the Agricultural Pests Act, 1911 (Act No. 11 of 1911), no person shall introduce or cause to be introduced into the Union from oversea, from the Mandated Territory of South West Africa, Portuguese East Africa or any State or Territory in Africa north of the Zambesi, excluding Northern Rhodesia, Nyasaland and the Belgian Congo:—

(*a*) Any pome fruit trees, including ornamental species of *Malus*, *Pyrus*, and *Cydonia*, unless an official certificate from the Department of Agriculture, or other official institution in the country of origin is produced, stating that the disease known as 'fire blight' (*Bacillus amylovorus*) is not known to occur on the premises where the plants were grown;

(*b*) Any unmanufactured or leaf tobacco, unless an official certificate from the Department of Agriculture, or other official institution in the country of origin is produced, stating that the tobacco has been inspected and, to the best knowledge of the examining officer, is free from infestation by *Ephestia elutella*; provided, however, that at the direction of the Department of Agriculture of the Union exemption from this provision may be given;

(*c*) Any broomcorn or any broom, brush or other article made in whole or in part from broom derived from *Sorghum*, if any unshredded broomcorn stalk or any portion thereof is present therein;

(*d*) Any plant packed in soil, except special rooting compost.

(2) The provisons of sub-paragraph (*b*) hereof shall also apply to unmanufactured or leaf tobacco introduced into the Union from the Belgian Congo, Nyasaland, Northern Rhodesia or Southern Rhodesia.

Restrictions on the Introduction of Citrus Trees, Fruit-Tree Stocks and Seeds and Plants of Lucerne.

III. No person shall introduce or cause to be introduced into the Union from any place citrus trees, fruit-tree stocks or seeds or plants of lucerne; provided that permits may be issued by the Department for the introduction of fruit-tree stocks of special value, subject to such precautions as the Department may determine; provided further that nothing contained in this paragraph shall apply to the introduction of citrus trees, fruit-tree stocks or seeds or plants of lucerne by the Department.

Restrictions Governing the Introduction of Potatoes.

IV. (1) No person shall introduce or cause to be introduced into the Union any potato tubers, the introduction whereof is undesirable by reason of the presence or suspected presence therein or thereon of any rot, decay, scab or any other blemish whatever due or suspected to be due to an insect or a parasitic organism likely to be introduced with affected tubers.

The Department may cause to be sorted at the expense of the owner all consignments of potatoes which arrive at any port of entry for introduction into the Union.

The Department may reject all potatoes the introduction of which is found on such sorting to be undesirable.

(2) No person shall introduce or cause to be introduced into the Union from oversea, or from Portuguese East Africa, the Mandated Territory of South West Africa or any of the States and Territories in Africa north of the Zambesi, except Northern Rhodesia, Nyasaland and the Belgian Congo, any consignment of potatoes unless he produces and delivers up to an officer:—

(*a*) A statement on oath from the consignor declaring the country of origin and the particular place or places therein in which the potatoes were grown and giving data clearly establishing the identity of the consignment; and

(*b*) A certificate from the Department of Agriculture of the declared country of origin, or a certificate from some official institution in that country which the Minister has agreed to recognize, certifying that at a date not more than thirty days before the time of the dispatch of the consignment the disease known as black scab or warty disease (*Synchytrium endobioticum*) has not been known to exist, so far as it is aware, within five miles of the place or places in which the potatoes are declared to have been grown;

Provided that the certificate referred to in sub-paragraph (*b*) shall not be required in respect of any consignement from any country:—

(*a*) If the Government thereof has certified to the Minister that the said disease has not been known to exist in that country and that Government has undertaken to inform the Minister of any outbreak and if information recording an outbreak has not been received by the Minister; or

(*b*) If the consignee produces from the Department of Agriculture or other aforesaid official institution of the declared country of origin a certificate dated within nine months of the day of arrival of the potatoes concerned, to the effect that the said disease has not been known to exist, so far as it is aware, in the shire, county, 'departement', or other such territorial division comprising the place or places in which the potatoes are declared to have been grown; if required by an officer the consignee shall produce to him an attested copy of the certificate herein provided for; or

(*c*) In cases in which special arrangements have been made therefore, if a certificate is produced from an authority referred to in this paragraph, to the effect:—

(i) That no case of the disease known as warty disease or black scab (*Synch. endobioticum*) has occurred, so far as it is aware, at the place or places where the potatoes are declared to have been grown;

(ii) That the only outbreaks of the disease within five miles of such place or places are trivial and without menace to lands where potatoes are grown for sale; and

(iii) That on official inspection the potatoes concerned were found to be apparently free from serious diseases and insect pests.

The Department shall not be responsible for any loss or expense that may be incurred through the detention of any consignment because of the absence of the necessary declaration or certificate.

(3) No person shall introduce or cause to be introduced into the Union any articles contained in any consignment of potatoes which appear by the evidence of accompanying documents, or by being contained in similar boxes, bags, or other receptacles, to have originated in the same area as the consignment found to be infected with black scab or warty disease (*Synch. endobioticum*).

(4) No person shall introduce or cause to be introduced into the Union any box, bag or other package of potatoes comprised in a consignement in which is discovered any patho-

genic bacterial disease or other disease on account of which potatoes are not admitted, if the inspection of a fair sample of the contents discloses that 15 per cent., or more, of the tubers are affected with any form of decay.

(*Ibid.*, pp. 449-451).

*** By Proclamation No. 287 of 6 November, 1936, the restrictions set out in the Schedule accompaning this Proclamation shall apply in respect of the removal of certain plants from one place to another within the Union. These restrictions govern particularly the transportation of plants by rail, post or otherwise, the removal of plants infested by insect pests or plant diseases, and the removal of plants in certain areas.

Forms 'A' (Nurseryman's certificate under Agricultural Pests Act) and 'B' (Dealer's certificate under Agricultural Pests Act) are appended. (*Ibid.*, pp. 451-453).

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[Also to the plant pathologist and the economic entomologist, it may sometimes be of interest to know the common names given in the different languages to a plant diseased or attacked by an insect or other pest.
Therefore it is not out of place in this section to draw attention to this dictionary, which is as far as is known, the most recent work of this kind published up-to-date.
The book is divided into two main parts. In the first half are given in alphabetical order, each being designated by a reference number, the Latin names of 3657 plants, for the most part cultivated or otherwise useful, followed by the indication of the respective plant family, by the synonyms, and whenever possible by the equivalent vernacular names in Arabic, Armenian, English, French, German, Italian and Turkish languages.
Illustrations on a small scale are given for approximately half the plants mentioned.
Then follow, always in the first part of this dictionary, an Arabic transliteration system, keys to the pronunciation of the Armenian, Turkish and Latin words, several pages of addenda and errata, as well as a bibliography, in which, however, no mention is made of several works of the same kind, for example, those of Britten and Holland (1878-1884), Clute (1923), Penzig (1924), Rolland (1890-1914), Salomon and Voss (1903), San Giorgio (1870), Ulrich (1872), the consultation of which would have undoubtedly facilitated the task of the A. and would, perhaps, afforded a greater perfection in his own work. In fact, apart from the orthographic imperfections noted here an there, the choice of the vernacular names given often comes in for some criticism, as they are not always those in common everyday use. However, these and other slight faults are certainly excusable and are in part inevitable in a work of this type and importance.
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NOTES

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